

Report: R7008
DATE: 07/03/08

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY

Version 06.04

TWI-032206

SELLING REGION LAB - MRL

BUSINESS: ZEXEL CARVEOUT AREA
DEPT.:
ADDRESS 1: 2121 S IMBODEN COURT
ADDRESS 2:
CITY/ST.: DECATUR IL 62521
CONTACT: RONALD W. ELDER

NUMBER: 143-8-669
PHONE: 314/682-1540
EXPIRES: 02/08/10
STATUS: APPR FOR SERV
FEDERAL EPA ID: ILR000150359
STATE EPA ID: 1150155433
EPA STATUS: CHK RESTRICT
SALES OFFICE: TWI

WASTE NAME: SOLIDIFIED SLUDGE
PROCESS GENERATING WASTE: SITE REMEDIATION
SHIP. NAME: HAZARDOUS WASTE, SOLID, N.O.S
ADDL. DESC: (TRICHLOROETHYLENE, TETRACHLOROETHENE, CIS-1,2-DICHLOROETHEN

CHEMICAL COMPOSITION

CIS-1,2-DICHLOROETHENE
STYRENE
TETRACHLOROETHANE
TRICHLOROETHENE
WATER
SOIL
NON-TRI CHEMICALS
CORN COB ABSORBANT

MIN	MAX	UNIT DESCRIPTION
	110000	UG/KG
	360000	UG/KG
	417000	UG/KG
	115000	UG/KG
0	10	%
70	80	%
0	20	%

METALS	EP TOX/TCLP
Arsenic as As	< 5.0
Cadmium as Cd	< 1.0
Lead as Pb	< 5.0
Mercury as Hg	< .2
Selenium as Se	< 1.0
Chromium Hex	
Nickel as Ni	
Thallium as Tl	

mg/l
mg/l
mg/l
mg/l
mg/l

PHYSICAL CHARACTERISTICS

Physical State: Solid
Flash Point: N/A
pH: 05.0 - 09.0
Color: BROWN
Odor: NONE
Layers: Single Layer
Specific Gravity: 0.000
Free Liquids: 0 - 10
Cyanides: < 5
Sulfides: > 3
PCB's: ppm, Regulated by 40 CFR 761:
Phenolics: < 10
% Taxable: DOT UN/NA NBR: NA3077
Treatment Codes: T07
CRQ RPT QTY:
EPA Permit:
Hazard Class: 9
State Codes: 090001
Benzene:
Packing Group: III
Process Codes: BSH
Cert of Distrct Rq:

PPM	TOTAL
PPM	TOTAL

Federal Codes: D039 D040

HANDLING

NEO. GREY GLOVES

SARANEX

TYPE C RESPIR CONST FLOW

INDEX/BLUE NITRILE (INNER GLOVE)

DOT PROPERTIES

Inhalation: 2 Dermal: 2 Oral: 2 Flammable: 0 Health: 0

SUMMARY

Waste Type B519
Form Code 1

Waste Tracking System

File Inventory Print Approvals Chemist Receiving Laboratory Tank Farm Process Planning Window Billing Help

Profile Approvals

Profile

Number

1032206

Retrieve

Edit Mode

Update

Cancel

Exit

Last Updated By:

meredith

Incoming Analysis Required

Process Code(s)

BSH

DOT Hazard Class

9

PCB Analysis Required

Lab: Run metals as specified below.

Dioxin Precursor Analysis Required

Visual Inspection Only

Visual Inspection: Glove Box / Hooded Feeder

Inspect Outer Drum Only - Do Not Open - Comments Below

Receiving: Verify Original Consumer Label and Write Label Info on PDW

Decant Sample Required

Sample Required

Sample Characteristics

Viscosity

L M H N/A

pH Screen

<2 >125 >125

Spec. Gravity

BTU/lb

% Chloride

Flashpoint

<73 <140 >140 N/A

Analytical Comments

Reference Tracking # / Sample # for analysis:

Dioxin Precursor analysis results below site action levels

No additional analysis required

Run on each load

Analysis supplied by generator - See Tech. Manager File

PCB analysis to be determined upon visual inspection of waste

Additional Comments: 12 samples were pulled from 4 rolloff boxes, and the average nu

Metals

ppm

AS 34

BE 0.1

CD 198

CR 1193

HG 1.03

K 0

NA 0

PB 206

ASH 36.68

Profile and Handling Comments

Profile Review for Appendix WAP-C Constituents by: KMEREDITH on 2/11/2008

Water Reactive - avoid contact with moisture

Contains Cyanides - DO NOT mix with pH < 6

Benzene NESHAP controls required

Poison Inhalation Hazard Contains Acrylonitrile Contains Hydrofluoric Acid

Reactive Category

TWI Laboratory Analysis Report

replaced
by 4A

(4)

Receiver #: 329006

Sample Required

of Drums: 1

Date: 7/17/2008

Profile #: 032206

Generator: ZEXEL CARVEOUT AREA

Descript: SOLIDIFIED SLUDGE

Process Code(s): BSH

Drum Storage Compatability

Profiled DOT Hazard Class 9

P = Pass F = Fail

8A _____ 8B _____ 4/5 _____

Sample Number **284638** 000231228VES

Drum Rep / Comp BULK/0

Free Liquid (%) 0

Pumpable NO

Layers/Phases -% Ea. 100

Color brown - dark

Turbidity N/A

Viscosity N/A

Physical State solid

Water Miscibility Part Floats Sinks



284638

Add. Description sludge

Water Reactivity No RXN

Radiation Screen =BKG

Flam. Pot. Screen NEGATIVE

pH Screen 6 at 10 pcnt

Oxidizer Screen NEGATIVE

As

3.4

Paint Filter Test N/A

Be

0.1

Cyanide Screen NEGATIVE CYANTESMO

Cd

198

Sulfide Screen POSITIVE

Cr

1193

Incidental Odor No

Ash 36.68

Specific Gravity

0.000 - 0.000

BTU/Lb 2340

2000 - 10000

% Chloride <0.5

1 - 5

Flash Point - Deg F

N/A

PCBs By GC - mg/kg

<50ppm

PCBs-Screen - ppm

<50ppm

2,4,5-T/Silvex - ppm /

PCP Screen - ppm

pH by Meter

01/01/00

01/01/00

01/01/00

01/01/00

01/01/00

01/01/00

01/01/00

01/01/00

01/01/00

01/01/00

01/01/00

Additional Comments: 12 samples were pulled from 4 rolloff boxes, and the average number was used for metals.

Profile Review for Appendix WAP-C Constituents by: KMEREDITH

Date: 2/11/2008

replace
by SA

5

Sample Required

Date: 7/17/2008

Profile #: 032206

Generator: ZEXEL CARVEOUT AREA

Descript: SOLIDIFIED SLUDGE

Process Code(s): BSH

Drum Storage Compatability

Profiled DOT Hazard Class 9

P = Pass F = Fail

8A 8B 4/5

Sample Number	284637	000231231VES
---------------	--------	--------------

Drum Rep / Comp	BULK/0
-----------------	--------

Free Liquid (%)	0
-----------------	---

Pumpable	NO
----------	----

Layers/Phases -% Ea.	100
----------------------	-----

Color	brown - dark
-------	--------------

Turbidity	N/A
-----------	-----

Viscosity	N/A
-----------	-----

Physical State	solid
----------------	-------

Water Miscibility	Part Floats Sinks
-------------------	-------------------

Add. Description	mud-like
------------------	----------

Water Reactivity	No RXN
------------------	--------

Radiation Screen	=BKG
------------------	------

Flam. Pot. Screen	NEGATIVE
-------------------	----------

pH Screen	6 at 10 pcnt
-----------	--------------

Oxidizer Screen	NEGATIVE
-----------------	----------

Paint Filter Test	N/A
-------------------	-----

Cyanide Screen	NEGATIVE CYANTESMO
----------------	--------------------

Sulfide Screen	POSITIVE
----------------	----------

Incidental Odor	No
-----------------	----

Specific Gravity	
------------------	--

BTU/Lb	2110
--------	------

% Chloride	<0.5
------------	------

Flash Point - Deg F	
---------------------	--

PCBs By GC - mg/kg	
--------------------	--

PCBs-Screen - ppm	
-------------------	--

2,4,5-T/Silvex - ppm	/
----------------------	---

PCP Screen - ppm	
------------------	--

pH by Meter	
-------------	--



284637

Profile		Conform		Date	Initials
		Yes	No		
				07/17/08	AJ
N/A			X		
=BKG			X		
See Flashpoint			X		
2-12.5			X		
Hg	2060				
K	1.03				
Na	0				
Pb	0				
0.000 - 0.000				01/01/00	
2000 - 10000				07/17/08	MT
1 - 5				07/17/08	TD
N/A				01/01/00	
<50ppm				07/17/08	
<50ppm				01/01/00	
				01/01/00	
				01/01/00	
				01/01/00	

Additional Comments: 12 samples were pulled from 4 rolloff boxes, and the average number was used for metals.

Profile Review for Appendix WAP-C Constituents by: KMEREDITH

Date: 2/11/2008

replaced
by 6A

Sample Required

of Drums: 1

Date: 7/17/2008

Profile #: 032206

Generator: ZEXEL CARVEOUT AREA

Descript: SOLIDIFIED SLUDGE

Process Code(s): BSH

Sample Number	284642	000231230VES
---------------	--------	--------------

Drum Rep / Comp	BULK/0
-----------------	--------

Free Liquid (%)	0
-----------------	---

Pumpable	NO
----------	----

Layers/Phases -% Ea.	100
----------------------	-----

Color	multi
-------	-------

Turbidity	N/A
-----------	-----

Viscosity	N/A
-----------	-----

Viscosity	27.11
Physical State	solid

Physical State	Solid
Melting Point (°C)	100-105

Water Miscibility	Part Floats Sinks

Add. Description	dirt, plastic, ppe, cloth

Water Reactivity	No RxN

Radiation Screen	= BKG
------------------	-------

Flam. Pot. Screen	BOC
-------------------	-----

pH Screen	6 at 10 pcent
-----------	---------------

Oxidizer Screen	NEGATIVE
-----------------	----------

Paint Filter Test	N/A
-------------------	-----

Cyanide Screen	NEGATIVE
----------------	----------

Sulfide Screen	POSITIVE
----------------	----------

Incidental Odor	No
-----------------	----

Specific Gravity	
------------------	--

BTU/Lb	8710
--------	------

% Chloride	< 0.5
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Flash Point - Deg F	
---------------------	--

PCBs By GC - mg/kg	
--------------------	--

PCBs-Screen - ppm	
-------------------	--

2,4,5-T/Silvex - ppm	/
----------------------	---

2,4,6-Trinitro- ppm	
PCP Screen - ppm	

pH by Meter	
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pH by Meter



284642

Drum Storage Compatability

Profiled DOT Hazard Class 9

P = Pass F = Fail

8A 8B 4/5

Profile		Conform		Date	Initials
		Yes	No		
				07/18/08	AJ
N/A			X		
=BKG			X		
See Flashpoint			X		
2-12.5			X		
Hg	206				
K	1.03				
Na	0				
Pb	0				
0.000 - 0.000				01/01/00	
2000 - 10000				07/18/08	MT
1 - 5				07/18/08	TD
N/A				01/01/00	
<50ppm				07/18/08	
<50ppm				01/01/00	
				01/01/00	
				01/01/00	
				01/01/00	

Additional Comments: 12 samples were pulled from 4 rolloff boxes, and the average number was used for metals.

Profile Review for Appendix WAP-C Consitituents by: KMEREDITH

Date: 2/11/2008

replaced
by 7A

⑦

Sample Required


of Drums: 1
Date: 7/17/2008
Profile #: 032206
Generator: ZEXEL CARVEOUT AREA
Descript: SOLIDIFIED SLUDGE
Process Code(s): BSH

Drum Storage Compatibility

Profiled DOT Hazard Class 9

P = Pass F = Fail

8A _____ 8B _____ 4/5 _____

Sample Number	284643	000231232VES		 284643		8A _____ 8B _____ 4/5 _____						
Drum Rep / Comp	BULK/0					Profile		Conform		Date	Initials	
Free Liquid (%)	0					<div style="background-color: #cccccc; width: 100%; height: 100%;"></div>		Yes	No	07/18/08	AJ	
Pumpable	NO											
Layers/Phases -% Ea.	100											
Color	brown											
Turbidity	N/A											
Viscosity	N/A					N/A		X				
Physical State	solid											
Water Miscibility	Part Floats Sinks											
Add. Description	mud-like											
Water Reactivity	No RXN											
Radiation Screen	=BKG				=BKG		X					
Flam. Pot. Screen	NEGATIVE				See Flashpoint		X					
pH Screen	7 at 10 pent				2-12.5		X					
Oxidizer Screen	NEGATIVE			As	3.4	Hg	206					
Paint Filter Test	N/A			Be	0.1	K	1.03					
Cyanide Screen	NEGATIVE			Cd	198	Na	0					
Sulfide Screen	POSITIVE			Cr	1193	Pb	0					
Incidental Odor	No				ASH 36.60							
Specific Gravity					0.000 - 0.000				01/01/00			
BTU/Lb	2110				2000 - 10000				07/18/08		RWH	
% Chloride	< 0.5				1 - 5				07/18/08		TD	
Flash Point - Deg F					N/A				01/01/00			
PCBs By GC - mg/kg					<50ppm				07/18/08			
PCBs-Screen - ppm					<50ppm				01/01/00			
2,4,5-T/Silvex - ppm	/								01/01/00			
PCP Screen - ppm									01/01/00			
pH by Meter									01/01/00			

Additional Comments: 12 samples were pulled from 4 rolloff boxes, and the average number was used for metals.
Profile Review for Appendix WAP-C Constituents by: KMEREDITH
Date: 2/11/2008

Waste Tracking System

File Inventory Print Approvals Chemist Receiving Laboratory Tank Farm Process Planning Window Billing Help

Profile Approvals

Profile

Number

539242

Retrieve

Ed Mode

Update

Cancel

Exit

Last Updated By:

fortin

Incoming Analysis Required

Process Code(s)

SF1

DOT Hazard Class

8

☒ PCB Analysis Required

☐ Lab: Run metals as specified below.

☐ Dioxin Precursor Analysis Required

☐ Visual Inspection Only

☐ Visual Inspection: Glove Box / Hooded Feeder

☐ Inspect Outer Drum Only - Do Not Open - Comments Below

☐ Receiving: Verify Original Consumer Label and Write Label Info on PDW

☐ Decant Sample Required

☒ Sample Required

Sample Characteristics

Viscosity

☒ L ☐ M ☐ H ☐ N/A

pH Screen

☐ <2 ☐ 2-125 ☒ >125

Spec. Gravity

BTU/lb

% Chloride

Flashpoint

☐ <73 ☐ <140 ☒ >140 ☐ N/A

Analytical Comments

30-9466

Reference Tracking # / Sample # for analysis:

☐ Dioxin Precursor analysis results below site action levels

☐ No additional analysis required

☐ Run on each load

☐ Analysis supplied by generator - See Tech. Manager File

☒ PCB analysis to be determined upon visual inspection of waste

Additional Comments: SF - CYANIDE SOLUTION, PH > 12.5. If drum is mostly oil, expe

Metals

AS 0

BE 0

CD 5

CR 5

HG 0

K 0

NA 0

PB 5

ASH 8.55

Profile and Handling Comments

Profile Review for Appendix WAP-C Constituents by: CLF on 7/2/2007

☐ Water Reactive - avoid contact with moisture

☒ Contains Cyanide - DO NOT mix with pH < 6

☐ Benzene NESHAIP controls required

☐ Poison Inhalation Hazard ☐ Contains Acrylonitrile ☐ Contains Hydrofluoric Acid

☐ Reactive Category

Additional Comments:

Report: R7008
DATE: 07/31/08

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY

Version 06.04

TWI-539242

SELLING REGION LAB - MRL

BUSINESS: PARKER ABEX
DEPT.....
ADDRESS 1: 2220 PALMER AVE
ADDRESS 2:
CITY/ST.: KALAMAZOO
CONTACT..:

MI 49001

NUMBER.....: 143-1-413
PHONE.....:
EXPIRES.....: 07/02/09
STATUS.....: APPR FOR SERV
FEDERAL EPA ID: MID005515853
STATE EPA ID..: 9260019999
EPA STATUS....: CHK RESTRICT
SALES OFFICE..: DET

WASTE NAME: CYANIDE SOLUTION LIQUIDS
PROCESS GENERATING WASTE: CLEANING BATH LIQUIDS FROM ELECTROPLATING OPERATIO RE CYANIDES ARE USED
SHIP. NAME: WASTE CORROSIVE LIQUIDS, TOXIC, N.O.S
ADDL. DESC:

CHEMICAL COMPOSITION

NON-TRI CHEMICALS

WATER/OIL
CYANIDE SOLUTIONS, LIQUID

MIN - MAX UNIT DESCRIPTION

98 99 %
1 2 %

METALS EP TOX/TCLP

Arsenic as As < 5.0 mg/l
Cadmium as Cd < 1.0 mg/l
Lead as Pb < 5.0 mg/l
Mercury as Hg < .2 mg/l
Selenium as Se < 1.0 mg/l
Chromium Hex
Nickel as Ni
Thallium as Tl

PHYSICAL CHARACTERISTICS

Physical State...: Liquid
Flash Point.....: 100 - 200 CL
pH.....: 12.5 - 14.0
Color.....: YELLOW
Odor.....: NONE
Layers.....: Single Layer
Specific Gravity.: 0.750 - 1.150
Free Liquids.....: 95 - 100
Cyanides.....: < 5 PPM TOTAL
Sulfides.....: < 3 PPM TOTAL
PCB's.....: ppm, Regulated by 40 CFR 761:
Phenolics.....: < 10 PPM
% Taxable.....: DOT UN/NA NBR: UN2922
Treatment Codes..: T07
CRQ RPT QTY.....: Material Class:
EPA Permit.....: EXP:
Hazard Class.....: 8
State Codes.....: 090001
Benzene: NESHAP:
Packing Group....: II
Process Codes....: SF1
Cert of Dstrct Rq:

Federal Codes: D003 F009 D002 D001

HANDLING

N-Dex Inner Glove NEO. GREY GLOVES SARANEX
TYPE C RESPIR CONST FLOW

INDEX/BLUE NITRILE (INNER GLOVE)

SF - CYANIDE SOLUTION, PH > 12.5

CONTAINS CYANIDES - DO NOT MIX WITH PH < 6

DOT PROPERTIES

Inhalation: 3 Dermal: 3 Oral: 3 Flammable: 0 Health: 0

SUMMARY

Waste Type B119
Form Code 1

(10)

Process Code(s): SF1

Sample Required

8A 8B 4/5

pH by Meter	() 100% () 10%
-------------	------------------



Profile	Conform	Date	Initials
	Yes No	6/4/08	SL
L	X		
=BKG	X		
See Flashpoint	X		
>12.5	X		
Hg			
K			
Na			
Pb			
0.750 - 1.150			
1 - 10000		6/4/08	ED
1 - 5		I	RW
>140			
<50ppm			
<50ppm			

Contains Cyanides - DO NOT mix with pH < 6

6/20/08

#: 325082
Drums: 8
Date: 5/1/2008
Profile #: 539242
Generator: PARKER ABEX
Description: CYANIDE SOLUTION LIQUIDS
Process Code(s): SF1

8A 8B) P 4/5



Profile		Conform		Date	Initials
		Yes	No		
				5/30/07	SL
L		X			
=BKG		X			
See Flashpoint		X			
>12.5		X			
Hg					
K					
Na					
Pb					
0.750 - 1.150					
1 - 10000				6-208	TD
1 - 5				1	50
>140					
<50ppm					
<50ppm					

Contains Cyanides - DO NOT mix with pH < 6

1's to be greater than 10,000.

Process Code(s): SF1

Sample Required

8A  4/5

pH by Meter	() 100% () 10%
-------------	------------------



283310

Profile	Conform	Date	Initials
	Yes No	6/16/08	RWT
L	X		
=BKG	X		
See Flashpoint	X		
>12.5	X		
Hg			
K			
Na			
Pb			
0.750 - 1.150			
1 - 10000		6/16/08	RWT
1 - 5		1-5	
>140			
<50ppm			
<50ppm			

Contains Cyanides - DO NOT mix with pH < 6

6/15/04

Report: R7008
DATE: 07/31/08

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY

Version 06.04
TWI-396926
SELLING REGION LAB - MRL

BUSINESS: US ARMY ENGINEER CENTER FLW
DEPT.....DIRECTOR OF PUBLIC WORKS
ADDRESS 1: 1334 1ST ST BLDG 2229
ADDRESS 2: ATZT DPW EE BLDG 2101
CITY/ST... FORT LEONARD WOOD MO 65473-8944
CONTACT...

NUMBER..... 142-4-441
PHONE.....
EXPIRES..... 07/24/10
STATUS..... APPR FOR SERV
FEDERAL EPA ID: M03213720979
STATE EPA ID... 9290019999
EPA STATUS..... UNDETERMINABL
SALES OFFICE... RPK

WASTE NAME: DECON WATER-TREATED VX & GB TO DRINKING WATER STANDARDS
PROCESS GENERATING WASTE: DECON OF CHEMICAL WEAPONS RECOGNITION TRAINING COM
SHIP. NAME: NON-REGULATED MATERIAL
ADDL. DESC:

CHEMICAL COMPOSITION

	MIN	- MAX	UNIT DESCRIPTION
WATER	93	100	%
SODIUM HYDROXIDE	1	2	%
NON-TRI CHEMICALS			
SUPER TROPICAL BLEACH	1	5	%

COMMENTS
TRACES OF VX AND GB AGENT ARE NEUTRALIZED WITH BLEACH AND RINSED
WITH THOUSANDS OF GALLONS OF WATER, THEN COLLECTED FOR
INCINERATION. ALL WATER IS TESTED PRIOR TO SHIPMENT TO ENSURE
COMPLIANCE WITH DRINKING WATER STANDARDS. VX AND GB
CONCENTRATION ARE CERTIFIED TO BE BELOW 20 PPB AND ARE USUALLY
<2 PPB. (3X LEVEL)

METALS EP TOX/TCLP

Nickel as Ni		
Thallium as Tl		
Barium as Ba	< 100.0	mg/l
Cadmium as Cd	< 1.0	mg/l
Chromium tot Cr	< 5.0	mg/l
Lead as Pb	< 5.0	mg/l
Silver as Ag	< 5.0	mg/l
Antimony		
Vanadium		
Arsenic as As	< 5.0	mg/l
Mercury as Hg	< .2	mg/l
Beryllium		
Potassium		
Sodium		
Selenium as Se	< 1.0	mg/l
Chromium Hex		

PHYSICAL CHARACTERISTICS

Physical State.... Liquid
Flash Point..... > = 200 CL
pH..... 05.0 - 09.0
Color..... VARIES
Odor..... NONE
Layers..... Single Layer
Specific Gravity.. 0.950 - 1.150
Free Liquids..... 99 - 100
Cyanides..... < 5 PPM TOTAL
Sulfides..... < 3 PPM TOTAL
PCB's..... N/A ppm, Regulated by 40 CFR 761:
Phenolics..... < 10 PPM
Taxable.....
Treatment Codes.. T07
CRQ RPT QTY.....
EPA Permit.....
Hazard Class.....
State Codes..... 090002
Benzene NESHAP:
Packing Group....
Process Codes.... DI2
Cert of Distrct Rq: Y

Federal Codes: NH00

HANDLING

NEO. GREY GLOVES N-DEX INNER GLOVE TYVEK proshield I,II

INDEX/BLUE NITRILE (INNER GLOVE)
DI-WATER WITH DECOMPOSITION PRODUCTS OF GB/VX.
REACTIVE CATEGORY: A (FOR SCHEDULING ONLY)

DOT PROPERTIES

Inhalation: 1 Dermal: 1 Oral: 1 Flammable: 0 Health: 0

SUMMARY

Waste Type B219
Form Code 1

Waste Tracking System

File Inventory Print Approvals Chemist Receiving Laboratory Tank Farm Process Planning Window Billing Help

Profile Approvals

Profile

Number

GB926

Retrieve

Edit Mode

Update

Cancel

Exit

Last Updated By:

carolyn

Incoming Analysis Required

Process Code(s)

D12

DOT Hazard Class

9

- ☐ PCB Analysis Required
- ☐ Lab Run Metals as specified below.
- ☐ Dioxin Precursor Analysis Required

Visual Inspection Only

- ☐ Visual Inspection: Glove Box / Hooded Feeder
- ☐ Inspect Outer Drum Only - Do Not Open - Comments Below
- ☐ Receiving: Verify Original Consumer Label and Write Label Info on PDW
- ☐ Decant Sample Required
- ☒ Sample Required

Analytical Comments

32-6509 Reference Tracking # / Sample # for analysis:

- ☐ Dioxin Precursor analysis results below site action levels
- ☐ No additional analysis required
- ☐ Run on each load
- ☐ Analysis supplied by generator - See Tech. Manager File
- ☐ PCB analysis to be determined upon visual inspection of waste

Additional Comments: MAY EXHIBIT POSITIVE OXIDIZER DUE TO BLEACH-GENER

Profile and Handling Comments

Profile Review for Appendix W/APC Constituents by: CAK on 7/2/2008

- ☐ Water Reactive - avoid contact with moisture
- ☐ Contains Cyanides - DO NOT mix with pH < 6
- ☐ Benzene NESHAPE controls required
- ☐ Poison Inhalation Hazard ☐ Contains Acrylonitrile ☐ Contains Hydrofluoric Acid

Reactive Category

Additional Comments: DI - WATER WITH DECOMPOSITION PRODUCT OF GB/XX

Sample Characteristics

Viscosity

☒ L ☐ M ☐ H ☐ N/A

pH Screen

☐ <2 ☒ 2-125 ☐ >125

Spec. Gravity

☐ <3000 ☐ BTU/lb

☐ <1 ☐ % Chloride

Flashpoint

☐ <73 ☐ <140 ☒ >140 ☐ N/A

Metals

- AS ☐ 0
- BE ☐ 0
- CD ☐ 0
- CR ☐ 0
- HG ☐ 0
- K ☐ 0
- NA ☐ 0
- PB ☐ 0
- ASH ☐ 3.1

Report: R7008
Date: 07/31/98

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY

Version 06.04
TWI-388852
SELLING REGION LAB - MRL

17

Business: R T VANDERBILT COMPANY INC
EPT..... VANDERBILT CHEMICAL-MURRAY
Address 1: 396 PELLA WAY
Address 2:
City/ST.: MURRAY KY 42071-7855
Contact: JOE CURTIS

NUMBER..... 105-0-816
PHONE..... 270/753-4926
EXPIRES..... 03/19/10
STATUS..... APPR FOR SERV
FEDERAL EPA ID: KYD053350229
STATE EPA ID.. 9210019999
EPA STATUS.... CHK RESTRICT
SALES OFFICE... TWI

Waste Name: BULK MIXED WASTE LIQUIDS
Process Generating Waste: WASTE ALCOHOLS, SPENT SCRUBBER SOLUTIONS, SUMPWATER
Ship Name: WASTE ALCOHOLS, N.O.S
DDL Desc:

CHEMICAL COMPOSITION

	MIN	- MAX	UNIT DESCRIPTION
WATER	50	99 %	
SODIUM HYDROXIDE	0	15 %	
SODIUM CARBONATE	0	15 %	
NON-TRI CHEMICALS			
ALCOHOLS (ISOPROPANOL, ETHYL HEXANOL, ETC)	0	50 %	
AMINES (DIBUTYL-, DIMETHYL-, DIAMYL-, ETC)	0	2 %	
TOLUENEDIAMINE	0	5 %	
CARBON DISULFIDE	0	2 %	

METALS	EP TOX/TCCLP
Arsenic as As	< 5.0 mg/l
Cadmium as Cd	< 1.0 mg/l
Lead as Pb	>= 5.0 mg/l
Mercury as Hg	< .2 mg/l
Selenium as Se	< 1.0 mg/l
Chromium Hex	
Nickel as Ni	
Thallium as Tl	

PHYSICAL CHARACTERISTICS

Physical State.... Liquid
Flash Point..... < 70 - 139 CL
pH..... 12.5 - 14.0
Color..... VARIES
Odor..... NONE
Layers..... Single Layer
Specific Gravity.. 0.950 - 1.150
Free Liquids..... 95 - 100
Cyanides..... < 5 PPM TOTAL
Sulfides..... < 3 PPM TOTAL
PCB's..... ppm, Regulated by 40 CFR 761:
Phenolics..... < 10 PPM
% Taxable..... DOT UN/NA NBR: UN1987
Treatment Codes... T07
CRQ RPT QTY..... 100 Material Class:
EPA Permit..... EXP:
Hazard Class..... 3
State Codes..... 090001
Benzene NESHA:
Packing Group.... III
Process Codes.... BLH
Cert of Distrct Rq:

Federal Codes: D001 D002 K161 U221 U092 D008

HANDLING

NEO. GREY GLOVES N-DEX INNER GLOVE NOMEX
CPF 3 TYPE C RESPIR CONST FLOW

CANCER SUSPECT AGENT: LEAD
CHECK COMPAT CAREFULLY-MAY CONTAIN UP TO 15% NaOH & TRACE AMINES
DUE TO RANGES IN CHEM COMP, BTU AND PH MAY VARY GREATLY

DOT PROPERTIES

Inhalation: 3 Dermal: 3 Oral: 2 Flammable: 0 Health: 0

SUMMARY

Waste Type B219
Code

Waste Tracking System

File Inventory Print Approvals Chemist Receiving Laboratory Tank Farm Process Planning Window Billing Help

Profile Approvals

Profile

Number

38852

Retrieve

Edit Mode

Update

Cancel

Exit

Last Updated By

carolyn

Incoming Analysis Required

Process Code(s)

BLH

DOT Hazard Class

3

PCB Analysis Required

Lab. Run metals as specified below.

Dioxin/Precursor Analysis Required

Visual Inspection Only

Visual Inspection: Glove Box / Hooded Feeder

Inspect Outer Drum Only - Do Not Open - Comments Below

Receiving: Verify Original Consumer Label and Write Label Info on PDW

Decant Sample Required

Sample Required

Analytical Comments

32-0886

Reference Tracking # / Sample # for analysis:

Dioxin Precursor analysis results below site action levels

No additional analysis required

Run on each load

Analysis supplied by generator - See Tech. Manager File

PCB analysis to be determined upon visual inspection of waste

Additional Comments

Profile and Handling Comments

Profile Review for Appendix W/AP-C Constituents by: CAK on 2/15/2008

Water Reactive - avoid contact with moisture

Contains Cyanides - DD NDT mix with pH < 6

Benzene NESHAP controls required

Poison Inhalation Hazard Contains Acrylonitrile Contains Hydrofluoric Acid

Reactive Category

Additional Comments: CHECK COMPAT CAREFULLY-HYDROXIDE & TRACE AMINES: BTU &

Sample Characteristics

Viscosity

L M H N/A

pH Screen

<2 2125 >125

Spec. Gravity

1-6000

BTU/lb

<5

% Chloride

Flashpoint

<73 <140 >140 N/A

Metals

AS 5

BE 0

CD 0

CR 76.5

HG 0

K 0

NA 0

PB 221

ASH 2.36

Report: R7007
DATE: 07/31/08

ONYX ENVIRONMENTAL SERVICES, LLC
WASTE PROFILE SUMMARY

Version 06.04
TWI-388522
SELLING REGION LAB - MRL

BUSINESS: BAYER CROP SCIENCE
DEPT.....
ADDRESS 1: 1740 WHITEHALL RD
ADDRESS 2:
CITY/ST.: MUSKEGAN MI 49445
CONTACT..:

NUMBER.....: 103-9-594
PHONE.....:
EXPIRES.....: 01/05/10
STATUS.....: APPR FOR SERV
FEDERAL EPA ID: MID080358351
STATE EPA ID..: 9260019999
EPA STATUS....: CHK RESTRICT
SALES OFFICE...: TWI

WASTE NAME: MOTHER LIQUOR RESIDUE
PROCESS GENERATING WASTE: PROCESS WASTE FROM MANUFACTURING OF INTERMEDIATE H IDE
SHIP. NAME: HAZARDOUS WASTE, LIQUID, N.O.S
ADDL. DESC: (METHANOL, GLUFOSINATE AMMONIUM)

CHEMICAL COMPOSITION

	MIN	MAX	UNIT DESCRIPTION
NON-TRI CHEMICALS			
GLUFOSINATE AMMONIUM	0	30 %	
AMMONIUM CHLORIDE	0	20 %	
METHANOL	0	5.8 %	
WATER	20	70 %	
NON-TRI CHEMICALS			
OTHER RELATED COMPOUNDS	8	8 %	

METALS	EP TOX/TCLP
Arsenic as As	< 5.0 mg/l
Cadmium as Cd	< 1.0 mg/l
Lead as Pb	< 5.0 mg/l
Mercury as Hg	< .2 mg/l
Selenium as Se	< 1.0 mg/l
Chromium Hex	
Nickel as Ni	
Thallium as Tl	

PHYSICAL CHARACTERISTICS

Physical State....: Liquid
Flash Point.....: 100 - 200 CL
pH.....: 04.0 - 06.0
Color.....: BROWN/VARIES
Odor.....: NONE
Layers.....: Multi Layer
Specific Gravity..: 0.950 - 1.150
Free Liquids.....: 99 - 100
Cyanides.....: < 5 PPM TOTAL
Sulfides.....: < 3 PPM TOTAL
PCB's.....: ppm, Regulated by 40 CFR 761:
Phenolics.....: < 10 PPM
% Taxable.....: DOT UN/NA NBR: NA3082
Treatment Codes...: T07
CRQ RPT QTY.....: Material Class:
EPA Permit.....: EXP:
Hazard Class.....: 9
State Codes.....: 090001
Benzene: NESHAP:
Packing Group....: III
Process Codes....: BLL
Cert of Distrct Rq:

Federal Codes: F003

HANDLING

NEO. GREY GLOVES N-DEX INNER GLOVE SARANEX
TYPE C RESPIR CONST FLOW

DOT PROPERTIES

Inhalation: 2 Dermal: 2 Oral: 2 Flammable: 0 Health: 0

SUMMARY

Waste Type B219
Form Code 1

Waste Tracking System

File Inventory Print Approvals Chemist Receiving Laboratory Tank Farm Process Planning Window Billing Help

Profile Approvals

Profile Number
308522

Retrieve

Edit Mode

Update

Cancel

Exit

Last Updated By:
carolyn

Incoming Analysis Required

Process Code(s):
BLL

DOT Hazard Class
6.1

☐ PCB Analysis Required
☐ Lab Run metals as specified below.
☐ Dioxin Precursor Analysis Required
☐ Visual Inspection Only
☐ Visual Inspection: Glove Box / Hooded Feeder
☐ Inspect Outer Drum Only - Do Not Open - Comments Below
☐ Receiving: Verify Original Consumer Label and Write Label Info on PDW
☐ Decant Sample Required
☒ Sample Required

Sample Characteristics

Viscosity
☒ L ☐ M ☐ H ☐ N/A

pH Screen
☐ <2 ☒ 2-125 ☐ >125

Spec. Gravity
☐ <3000 BTU/lb
☐ <11 % Chloride

Flashpoint
☐ <73 ☒ <140 ☐ >140 ☐ N/A

Analytical Comments

31-5144 Reference Tracking # / Sample # for analysis:
☐ Dioxin Precursor analysis results below site action levels
☐ No additional analysis required
☐ Run on each load
☐ Analysis supplied by generator - See Tech. Manager File
☐ PCB analysis to be determined upon visual inspection of waste
Additional Comments:

Metals
AS 0
BE 0
CD 0
CR 0
HG 0
K 0
NA 0
PB 0
ASH 1.98

Profile and Handling Comments

Profile Review for Appendix WAPC Constituents by CAK on 12/11/2007
☐ Water Reactive - avoid contact with moisture
☐ Contains Cyanide - DD NOT mix with pH < 6
☐ Benzene NESHAP controls required
☐ Poison Inhalation Hazard ☐ Contains Acrylonitrile ☐ Contains Hydrofluoric Acid
☐ Reactive Category
Additional Comments:

Visual Inspection: Glove Box / Hooded Feeder

Process Code(s):

Drum Storage Compatibility

Profiled DOT Hazard Class 9


P = Pass F = Fail

8A _____ 8B _____ 4/5 _____

Sample Number	285174	IL00000001
---------------	--------	------------



285174

Drum Rep / Comp	1/			285174		Profile		Conform		Date	Initials
Free Liquid (%)								Yes	No	08/01/08	AJ
Pumpable	NO										
Layers/Phases -% Ea.											
Color											
Turbidity											
Viscosity						L			X		
Physical State											
Water Miscibility											
Add. Description											
Water Reactivity											
Radiation Screen					=BKG			X			
Flam. Pot. Screen					See Flashpoint			X			
pH Screen	6 at 100 pcnt				2-12.5			X			
Oxidizer Screen				As	240	Hg	65				
Paint Filter Test				Be	0.20	K	0.02				
Cyanide Screen				Cd	9.3	Na	0				
Sulfide Screen				Cr	14	Pb	0				
Incidental Odor	ASH 2.218										
Specific Gravity	1.10								08/01/08		AJ
BTU/Lb	2430								08/01/08		MT
% Chloride	2.5								08/01/08		JP
Flash Point - Deg F									01/01/00		
PCBs By GC - mg/kg					<50ppm				08/01/08		
PCBs-Screen - ppm					<50ppm				01/01/00		
2,4,5-T/Silvex - ppm	/								01/01/00		
PCP Screen - ppm									01/01/00		
pH by Meter									01/01/00		

Add. Comments: blend analysis

Attachment 2

Revised Data Sheets for Waste Feed Protocol

4 A

Sample Required

of Drums: 1

Date: 7/17/08

Profile #: 032206

Generator: ZEXEL CARVEOUT AREA

Descript: SOLIDIFIED SLUDGE

Process Code(s): BSH

Drum Storage Compatability

Profiled DOT Hazard Class 9

P = Pass F = Fail

8A _____ 8B _____ 4/5 _____

Sample Number	284638	000231228VES
---------------	--------	--------------

Drum Rep / Comp	BULK/0
-----------------	--------

Free Liquid (%)	0
-----------------	---

Pumpable	NO
----------	----

Layers/Phases -% Ea.	100
----------------------	-----

Color	brown - dark
-------	--------------

Turbidity	N/A
-----------	-----

Viscosity	N/A
-----------	-----

Physical State	solid
----------------	-------

Physical State	
Water Miscibility	Part Floats Sinks

Water miscibility	
Add. Description	sludge

Water Reactivity	No RXN
------------------	--------

Water Reactivity	NO TEST
Radiation Screen	=BKG

Radiation Screen	POS
Flam. Pot. Screen	NEGATIVE

pH Screen	6 at 10 pcnt
-----------	--------------

Oxidizer Screen	NEGATIVE
-----------------	----------

Oxidizer Screen	negative
Paint Filter Test	N/A

Cyanide Screen	NEGATIVE CYANTESMO
----------------	--------------------

Cyanide Screen	NEGATIVE SWEETENED
Sulfide Screen	POSITIVE

Sulfide Screen	POSITIVE
Incidental Odor	No

Incidental Color	no
Specific Gravity	

Specific Gravity	
BTU/lb	2340

BTU/LB	2540
% Chloride	≤ 0.5

% Chloride	20.5
Flash Point - Deg F	

Flash Point - Deg F	
PCBs By GC - mg/kg	

PCBs By GC - mg/kg	
PCBs Screen - ppm	

PCBs-Screen - ppm	
2,4,5-T/Silvex - ppm	/

2,4,5-T/Silvex - ppm	7
PCB Screen - ppm	

PCP Screen - ppm	
pH by Meter	

pH by Meter _____



284638

[illegible]

Additional Comments: 12 samples were pulled from 4 rolloff boxes, and the average number was used for metals.

Profile Review for Appendix WAP-C Constituents by: KMEREDITH

Date: 2/11/08

5A

Sample Required

Process Code(s): BSH

Drum Storage Compatibility

Profiled DOT Hazard Class 9

P = Pass F = Fail

8A _____ 8B _____ 4/5 _____

Sample Number	284637	000231231VES
---------------	--------	--------------

Drum Rep / Comp	BULK/0
-----------------	--------

Free Liquid (%)	0
-----------------	---

Pumpable	NO
----------	----

Lavers/Phases -% Ea.	100
----------------------	-----

Color	brown - dark
-------	--------------

Turbidity	N/A
-----------	-----

Viscosity	N/A
-----------	-----

Physical State	solid
----------------	-------

Water Miscibility	Part Floats Sinks
-------------------	-------------------

Water Miscibility	
Add Description	mud-like

Water Reactivity	No RXN
------------------	--------

Water Reactivity	
Radiation Screen	≡ BKG

Flam Pot Screen	NEGATIVE
-----------------	----------

pH Screen	6 at 10 pcnt
-----------	--------------

Oxidizer Screen	NEGATIVE
-----------------	----------

Paint Filter Test	N/A
-------------------	-----

Cyanide Screen	NEGATIVE CYANTESMO
----------------	--------------------

Cyanide Screen	POSITIVE
Sulfide Screen	POSITIVE

Sulfide screen	POSITIVE
Incidental Odor	No

Incidental Odds	no
Specific Gravity	

Specific Gravity	
RTU/Lb	2110

BTU/LB	2110
% CHLORIDE	≤ 0.5

% Chloride	≤0.5
Flash Point, °F	

Flash Point - Deg F	
225 - 230	

PCBs By GC - mg/kg	
PCB-2	

PCBs-Screen - ppm	
2.4.5 PCBs	1

2,4,5-T/Silvex - ppm	7

PCP Screen - ppm	
111-114	

pH by Meter _____

[illegible]

284637

Profile		Conform		Date	Initials
		Yes	No	07/17/08	AJ
N/A			X		
=BKG			X		
See Flashpoint			X		
2-12.5			X		
Pb	206				
Hg	1.03				
Na	0				
K	0				
0.000 - 0.000				01/01/00	
2000 - 10000				07/17/08	MT
1 - 5				07/17/08	TD
N/A				01/01/00	
<50ppm				07/17/08	
<50ppm				01/01/00	
				01/01/00	
				01/01/00	
				01/01/00	

Date: 2/11/08

GA

Sample Required

Date: 7/17/08

Profile #: 032206

Generator: ZEXEL CARVEOUT AREA

Descript: SOLIDIFIED SLUDGE

Process Code(s): BSH

Drum Storage Compatability

Profiled DOT Hazard Class 9

P = Pass F = Fail

8A 8B 4/5

Sample Number	284642	000231230VES
---------------	--------	--------------



284642

Drum Rep / Comp	BULK/0
-----------------	--------

Free Liquid (%)	0
-----------------	---

Pumpable	NO
----------	----

Layers/Phases -% Ea.	100
----------------------	-----

Color	multi
-------	-------

Turbidity	N/A
-----------	-----

Viscosity	N/A
-----------	-----

Physical State	solid
----------------	-------

Water Miscibility	Part Floats Sinks
-------------------	-------------------

Add. Description	dirt, plastic, ppe, clothing
------------------	------------------------------

Water Reactivity	No RXN
------------------	--------

Radiation Screen	---BKG
------------------	--------

Flam. Pot. Screen	BOC
-------------------	-----

pH Screen	6 at 10 pcnt
-----------	--------------

Oxidizer Screen	NEGATIVE
-----------------	----------

Paint Filter Test	N/A
-------------------	-----

Cyanide Screen	NEGATIVE
----------------	----------

Cyanide Screen	NEGATIVE
Sulfide Screen	POSITIVE

Incidental Odor	No
-----------------	----

Incidental Occur	Yes
Specific Gravity	

BTU/lb	8710
--------	------

% Chloride	< 0.5
------------	-------

Flash Point, Deg F	
--------------------	--

Flash Point - Deg F	
PCBs By GC - mg/kg	

PCBs By GC - HighKj	
PCBs Screen - ppm	

PCBs-Screen - ppm	
2,4,6-T/Silvex - ppm	/

2,4,5-T Silvex - ppm	7
PCB Screen - ppm	

PCP Screen - ppm	
pH by Meter	

pH by Meter _____

Profile		Conform		Date	Initials
		Yes	No		
				07/18/08	AJ
N/A			X		
=BKG			X		
See Flashpoint			X		
2-12.5			X		
Pb	206				
Hg	1.03				
Na	0				
K	0				
0.000 - 0.000				01/01/00	
2000 - 10000				07/18/08	MT
1 - 5				07/18/08	TD
N/A				01/01/00	
<50ppm				07/18/08	
<50ppm				01/01/00	
				01/01/00	
				01/01/00	
				01/01/00	

Additional Comments: 12 samples were pulled from 4 rolloff boxes, and the average number was used for metals.
Profile Review for Appendix WAP-C Constituents by: KMEREDITH
Date: 2/11/08

7A

Sample Required

Date: 7/17/08

Generator: ZEXEL CARVEOUT AREA

Descript: SOLIDIFIED SLUDGE

Process Code(s): BSH

Drum Storage Compatability

Profiled DOT Hazard Class 9

P = Pass F = Fail

8A _____ 8B _____ 4/5 _____

Sample Number	284643	000231232VES
---------------	--------	--------------

Drum Rep / Comp	BULK/0
-----------------	--------

Free Liquid (%)	0
-----------------	---

Pumpable	NO
----------	----

Layers/Phases -% Ea.	100
----------------------	-----

Color	brown
-------	-------

Turbidity	N/A
-----------	-----

Viscosity	N/A
-----------	-----

Physical State	solid
----------------	-------

Water Miscibility	Part Floats Sinks
-------------------	-------------------

Add. Description	mud-like
------------------	----------

Water Reactivity	No RXN
------------------	--------

Radiation Screen	-BKG
------------------	------

Flam. Pot. Screen	NEGATIVE
-------------------	----------

pH Screen	7 at 10 pcnt
-----------	--------------

Oxidizer Screen	NEGATIVE
-----------------	----------

Paint Filter Test	N/A
-------------------	-----

Cyanide Screen	NEGATIVE
----------------	----------

Sulfide Screen	POSITIVE
----------------	----------

Incidental Odor	No
-----------------	----

Specific Gravity	
------------------	--

BTU/Lb	2110
--------	------

% Chloride	< 0.5
------------	-------

Flash Point - Deg F	
---------------------	--

PCBs By GC - mg/kg	
--------------------	--

PCBs-Screen - ppm	
-------------------	--

2,4,5-T/Silvex - ppm	/
----------------------	---

PCP Screen - ppm	
------------------	--

pH by Meter	
-------------	--

Addition of Carbonates to the Water

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

2. Once the problem is identified, the next step is to define the objectives and goals of the project. This helps to clarify what needs to be achieved and provides a clear direction for the team.

3. The third step is to develop a plan or strategy to address the problem. This involves breaking down the problem into smaller, manageable tasks and determining the resources needed to complete each task.

4. The fourth step is to implement the plan. This involves putting the strategy into action and monitoring progress regularly to ensure that the project is on track.

5. The final step is to evaluate the results of the project. This involves assessing the outcomes against the objectives and goals and identifying any areas for improvement or further action.

284643

Profile		Conform		Date	Initials
		Yes	No	07/18/08	AJ
N/A			X		
=BKG			X		
See Flashpoint			X		
2-12.5			X		
Pb	206				
Hg	1.03				
Na	0				
K	0				
0.000 - 0.000				01/01/00	
2000 - 10000				07/18/08	RWH
1 - 5				07/18/08	TD
N/A				01/01/00	
<50ppm				07/18/08	
<50ppm				01/01/00	
				01/01/00	
				01/01/00	
				01/01/00	

Additional Comments: 12 samples were pulled from 4 rolloff boxes, and the average number was used for metals.

Profile Review for Appendix WAP-C Constituents by: KMEREDITH

Date: 2/11/08

Attachment 3

Specification Sheets for Spike Materials

The Alfa Aesar logo consists of the words "Alfa Aesar" in a bold, sans-serif font. The "A" in "Alfa" is stylized with a small registered trademark symbol. The "A" in "Aesar" is also stylized with a small registered trademark symbol.*A Johnson Matthey Company*26 Parkridge Road
Ward Hill, MA 01835 USA

T: 1-978-521-6300

F: 1-978-521-6350

E: info@alfa.comwww.alfa.com

Product Specification

Catalog Number:	14497
Product Name:	Mercury(II) nitrate hydrate, ACS, 98.0% min
Alternate Name:	None
Structure:	$\text{Hg}(\text{NO}_3)_2 \cdot x\text{H}_2\text{O}$ ($x = 1 - 2$)
Chemical Abstract No:	7783-34-8
EINECS:	233-886-4
TSCA:	Yes
Formula Weight:	324.60 anhy.

Technical Data (Literature Values)

Density:	4.39 g/mL	Boiling point:	No data found
Melting Point:	79 °C	Flash point:	No data found

Specification (maximum allowed)

Residue after reduction:	0.01%	Chloride (Cl):	0.002%
Sulfate (SO₄):	0.002%	Iron (Fe):	0.001%
Hg₂(NO₃)₂·H₂O or Hg₂(NO₃)₂·2H₂O assay:	98.0% min.		

Prepared by: Gregory Harris
Technical Service
May 16, 2008

12/27/2007 10:22 FAX SIN 487 1234

WEGO MINERAL

Wego Chemical Mineral Corp.
238 Great Neck Road
Great Neck, NY 11021
UNITED STATES
Phone: (516) 487-3510
Fax: (516) 487-3794

TECHNICAL DATA

CERTIFICATE OF ANALYSIS

Certificate Data

Product Name: LEAD NITRATE TECH - 25 KG BAGS

Wego Tracking Number 00004208

CAS # 10099-74-8

File Number 42728

Synonyms

Items	Specifications	TEST RESULT
Batch No 2807KY087		
Certificate Data	Report	Quality
Purity	99 % min	99.2
Water Insoluble Matter	0.02 % max	0.01
Iron	0.01 % max	0.01
Free Acid	0.10 % max	0.01

The information set forth hereby is offered as a service to our customers and is not intended to relieve a customer from its responsibility to determine the suitability of the information or of the materials described herein for purchaser's purposes, to determine which standards of information, to comply with all laws and procedures regarding safe use of these materials and to use these materials in a safe and proper manner. No warranty is made of the merchantability or fitness of any product, and nothing herein involves any of the Seller's conditions of sale.

Lot #
4306 HJ40710281



NIKKIN FLUX CORP.
PO Box 402
Edwardsville, IL 62025
Tel: (618) 656-2125
Fax: (618) 656-2305
www.nikkinflux.com

Ref. No. SG/326/07-08Date JAN 3, 2008

TEST CERTIFICATE
(CERTIFICATE OF ANALYSIS)

PRODUCT : HEXACHLOROETHANE
FORM : WHITE, CRYSTALLINE POWDER
(FREE-FLOWING MATERIAL)
COLOR : SNOW-WHITE
ODOR : CAMPHOR-LIKE

(1) PURITY (% BY GLC) : 99.93%
(2) MELTING POINT : 186 °C
(3) MOISTURE (% WT.) : 0.018%
(4) ASH (% WT.) : 0.078%
(5) FREE CHLORINE : NIL
(6) WATER SOLUBLE
CHLORIDE (% NaCl) : 0.002%
(7) GRADING : -18 +150 Mesh BSS

Post-It® Fax Note	7671	Date	6/23/08	# of Pages	1/1
To	Joe Bearden	From	Steven Schoeffler		
Co./Dept.	Veolia	Co.	NikkIn Flux Corp.		
Phone #		Phone #			
Fax #	271-0974	Fax #			

Sheet No.: CHROMIC ACID Liquid (35%)

Revision: 04/30/04T-217

IMDS ID No.: 756617

Technical Information

CHROMIC ACID

Liquid (35%)

INTRODUCTION

CHROMIC ACID Liquid (35%) is a high-purity product well suited for use in chromium plating and anodizing applications. It can also be used in the manufacture of chromate conversion compounds for zinc and cadmium, bright dips for copper, brass, aluminum, and magnesium, for producing certain types of pigments, as an oxidant in organic syntheses in the pharmaceutical industry, and as a catalyst in certain petroleum refining processes.

SPECIFICATIONS

	<u>Specification</u>	<u>Typical</u>
Chromic Acid CrO_3 -	57.3 oz/gal (430 g/l) Min.	60 oz/gal (450 g/l)
Sulfate (SO_4) -		0.07%
Chloride (Cl) -		0.002%
Insoluble Materials -		0.002%
Sodium (Na) -		0.023%

CHROMIC ACID Liquid (35%)**PAGE 2****PHYSICAL PROPERTIES**Typical

Color -	Dark orange to red solution
Stability in Air -	Stable
Specific Gravity -	1.30 at 60° F (16° C)
Bulk Density -	10.8 lbs/gal (1300 g/l)

SPECIAL INSTRUCTIONS

CHROMIC ACID Liquid (35%) is a strong oxidizing agent. It should be stored away from organic materials.

PACKAGING

CHROMIC ACID Liquid (35%) is packaged in 55 gallon steel drums.

WASTE DISPOSAL

This material must be disposed of in accordance with all applicable federal, state, and local regulations and permits. Consult the MSDS for additional regulatory information. The information contained herein is general in nature and may not apply to each application.

GENERAL SAFETY PRECAUTIONS

When working with this product(s), ensure that all health, environmental, and safety regulations and standards are met. Avoid direct contact with this material. Do not inhale associated mist, vapors, and/or dust. Maintain and limit exposure as recommended by OSHA, ACGIH, and other state and local regulations. Wash contaminated clothing before reuse. Always comply with the Hazard Communication Standard, 29 CFR 1910.1200. Emergency showers and eyewashes must be readily available.

It is recommended that the plating chemistry product(s) referred to in this Technical Information Sheet be used: (a) in accordance with the information provided in product specific MSDS; and (b) in compliance with all applicable requirements and guidelines established by OSHA, NIOSH, ACGIH, NFPA, and others.

NOTE: A Material Safety Data Sheet (MSDS) for this product(s) is available upon request from Atotech USA Inc., Customer Service/Sales Support Group, 1750 Overview Drive, Rock Hill, SC 29730.

REVIEW MSDS BEFORE USING THIS PLATING CHEMISTRY AND FOR SPECIFIC INFORMATION. A precautionary approach should be used when there is potential for chemical exposure – this includes minimizing exposure potential, rapid decontamination, and medical follow-up.



Atotech USA Inc.
Quality Control
1750 Overview drive
Rock Hill, SC 29731-2000
QC Lab Tel: (803) 817-3575 - Fax: (803) 817-3606
Customer Service: (800) 752-8464 (US Customers Only)

HARCROS CHEMICALS INC
4330 GERALDINE AVE
SAINT LOUIS MO 63115

Inspection Certificate

Date: 06/03/2008
Article-No: 2200041-0055-4-000
Material: LIQUID CHROMIC ACID (CH)
BATCH: CH08E00643
Expiration Date : 05/27/2010
Atotech Order No: 5002060087
Delivery No: 5006093728
Cust.Mat.No:
Cust.Order No: 020050339

This is to certify that the product identified has been tested under controlled laboratory conditions and found to meet our specifications and quality assurance standards.

Inspection Date: 05/27/2008

Characteristic	Lower Limit	Upper Limit	Value	Unit
Appearance			Clear liquid	
Color			Red	
Specific Gravity 20 deg C	1.285	1.315	1.310	G/ML
Content: Chromic acid	419.3	471.5	458.0	G/L

This is a controlled computer printout valid without a signature.

Quality Control Laboratory
Laboratory Manager



Atotech USA Inc.
Quality Control
1750 Overview drive
Rock Hill, SC 29731-2000
QC Lab Tel: (803) 817-3575 - Fax: (803) 817-3606
Customer Service: (800) 752-8464 (US Customers Only)

12371

HARCROS CHEMICALS INC
4330 GERALDINE AVE
SAINT LOUIS MO 63115

Inspection Certificate

Date: 05/23/2008
Article-No: 2200041-0055-4-000
Material: LIQUID CHROMIC ACID (CH)
Batch: CH07L00597
Expiration Date: 12/18/2009
Atotech Order No: 5002060087
Delivery No: 5006093116
Cust.Mat.No:
Cust.Order No: 020050339

This is to certify that the product identified has been tested under controlled laboratory conditions and found to meet our specifications and quality assurance standards.

Inspection Date: 12/19/2007

Characteristic	Lower Limit	Upper Limit	Value	Unit
Appearance			Clear liquid	
Color			Orange	
Specific Gravity 20 deg C	1.285	1.315	1.305	G/ML
Content: Chromic acid	419.3	471.5	447.0	G/L

This is a controlled computer printout valid without a signature.

Quality Control Laboratory
Laboratory Manager



Atotech USA Inc.
Quality Control
1750 Overview drive
Rock Hill, SC 29731-2000
QC Lab Tel: (803) 817-3575 - Fax: (803) 817-3606
Customer Service: (800) 752-8464 (US Customers Only)

12371

HARCROS CHEMICALS INC
4330 GERALDINE AVE
SAINT LOUIS MO 63115

Inspection Certificate

Date 05/23/2008
Article-No: 2200041-0055-4-000
Material: LIQUID CHROMIC ACID (CH)
Batch: CH08C02842
Expiration Date : 03/19/2010
Atotech Order No: 5002060087
Delivery No: 5006093116
Cust.Mat.No:
Cust.Order No: 020050339

This is to certify that the product identified has been tested under controlled laboratory conditions and found to meet our specifications and quality assurance standards.

Inspection Date: 03/19/2008

Characteristic	Lower Limit	Upper Limit	Value	Unit
Appearance			Clear liquid	
Color			Red	
Specific Gravity 20 deg C	1.285	1.315	1.310	G/ML
Content: Chromic acid	419.3	471.5	460.0	G/L

This is a controlled computer printout valid without a signature.

Quality Control Laboratory
Laboratory Manager

Attachment 4

Scale and Balance Certifications



5404 Jedmed Ct. - St. Louis, MO 63129
Business: (314) 846-7778 - Fax: (314) 846-7779

Scale Inspection Report



Customer: ONYX ENVIRONMENTAL (86)
#7 MOBILE AVENUE
SAUGET, IL 62201

Description: Class I
Serial No: 1121191553
Scale No: N/A
Divisions: .0001 g

Location: N/A
MFG / Model: Mettler / AG204

Scale Type: Balance
Capacity: 210 g

Used this scale to test customer's test weights

see attached

Shift Test Sides / Corners / Sections	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
	0.0300 g	0.0300 g	+0.0000 g	+/- 0.0001 g		ACCEPT
	0.1000 g	0.1000 g	+0.0000 g	+/- 0.0001 g		ACCEPT
	0.5000 g	0.5000 g	+0.0000 g	+/- 0.0001 g		ACCEPT
	1.0000 g	1.0000 g	+0.0000 g	+/- 0.0001 g		ACCEPT
	2.0000 g	2.0000 g	+0.0000 g	+/- 0.0001 g		ACCEPT
	3.0000 g	3.0000 g	+0.0000 g	+/- 0.0001 g		ACCEPT
	5.0000 g	5.0000 g	+0.0000 g	+/- 0.0001 g		ACCEPT

Buildup Weight	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
	10.0000 g	10.0000 g	+0.0000 g	+/- 0.0002 g		ACCEPT
	20.0000 g	20.0000 g	+0.0000 g	+/- 0.0002 g		ACCEPT
	30.0000 g	30.0000 g	+0.0000 g	+/- 0.0003 g		ACCEPT
	50.0000 g	50.0000 g	+0.0000 g	+/- 0.0003 g		ACCEPT
	100.0000 g	100.0000 g	+0.0000 g	+/- 0.0003 g		ACCEPT

Test Procedure follows QSP009-001/002 NIST #: MO: 259883/253250 39598 OBS04-0268/03-0450
Rice Lake: R22/288926-02 R22/272801-0A R22/274081-0A

Cal Date: 04/30/2008 Next Cal due: 04/30/2009
Service Technician Registration #: 0524-M
Calibrated By Service Technician: Jim Koerkenmeier

Calibration Dates: APR

Job Queue#: LT214946

Report ID: 68963270

Uncertainty of Measurement provided on request

FOR CUSTOMER USE ONLY

Reviewed By _____

Date Reviewed _____



6404 Jedred CL - St. Louis, MO 63129
Business: (314) 846-7778 - Fax: (314) 846-7779

Scale Inspection Report



Customer: ONYX ENVIRONMENTAL (86)
#7 MOBILE AVENUE
SAUGET, IL 62201

Location: Lab
MFG / Model: Gram Set

Scale Type: _____
Capacity: 100 g

Description: Class III
Serial No: na
Scale No: na
Divisions: .0001 g

Used this scale to test customer's test weights

Shift Test Sides / Corners/ Sections	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	X

Buildup Weight	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
	1.0000 g	0.9996 g	-0.0004 g	+/- 0.0004 g		ACCEPT
	2.0000 g	2.0000 g	+0.0000 g	+/- 0.0004 g		ACCEPT
	3.0000 g	2.9999 g	-0.0001 g	+/- 0.0004 g		ACCEPT
	5.0000 g	5.0000 g	+0.0000 g	+/- 0.0004 g		ACCEPT
	10.0000 g	10.0000 g	+0.0000 g	+/- 0.0004 g		ACCEPT
	20.0000 g	20.0001 g	+0.0001 g	+/- 0.0004 g		ACCEPT
	30.0000 g	30.0000 g	+0.0000 g	+/- 0.0004 g		ACCEPT
	50.0000 g	49.9997 g	-0.0003 g	+/- 0.0004 g		ACCEPT
	100.0000 g	100.0000 g	+0.0000 g	+/- 0.0004 g		ACCEPT

Test Procedure follows QSP009-001/002 NIST #: MO: 259883/253250 39598 OBS04-0268/03-0450
Rica Lake: 822/266926-02 822/272801-06 822/274081-08

Cal Date: 04/30/2008 Next Cal due: 04/30/2009

Calibration Dates: APR

Service Technician Registration #: 0524-M

Calibrated By Service Technician: Jim Koerkenmeier

Job Queue#: LT214946

Report ID: 68965239

Uncertainty of Measurement provided on request

FOR CUSTOMER USE ONLY

Reviewed By _____

Date Reviewed _____



6404 Jedmed Ct - St. Louis, MO 63129
Business: (314) 845-7778 - Fax: (314) 845-7779

Scale Inspection Report



Customer: ONYX ENVIRONMENTAL (86)
#7 MOBILE AVENUE
SAUGET, IL 62201

Description: Class I
Serial No: H203447
Scale No: N/A
Divisions: 0.01 g

Location: N/A
MFG / Model: Mettler / PT3600

Scale Type: Balance
Capacity: 3,600 g

Shift Test Sides / Corners / Sections	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	X

Buildup Weight	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
	1.00 g	1.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	2.00 g	2.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	5.00 g	5.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	10.00 g	10.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	50.00 g	50.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	100.00 g	100.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	500.00 g	500.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	1000.00 g	1000.00 g	+0.00 g	+/- 0.02 g		ACCEPT
	2000.00 g	2000.00 g	+0.00 g	+/- 0.02 g		ACCEPT

Test Procedure follows QSP009-001/002 NIST #: MO: 259883/253250 39598 OBS04-0268/03-0450
Rice Lake: 822/268926-02 822/272801-06 822/274081-06

Cal Date: 04/30/2008 Next Cal due: 04/30/2009
Service Technician Registration #: 0524-M
Calibrated By Service Technician: Jim Koerkenmeier

Calibration Dates: APR

Job Queue#: LT214946

Report ID: 68962684

Uncertainty of Measurement provided on request

FOR CUSTOMER USE ONLY

Reviewed By _____

Date Reviewed _____

6404 Jedmed Ct. - St. Louis, MO 63128
Business: (314) 845-7778 - Fax: (314) 845-7779

Attn: Kathleen Smith



Scale Inspection Report



618-271-8761

Customer: ONYX ENVIRONMENTAL (86)
#7 MOBILE AVENUE
SAUGET, IL 62201

Location: N/A
MFG / Model: Mettler/ PG802

Scale Type: Balance
Capacity: 810 g

Description: Class I
Serial No: 1119251180
Scale No: N/A
Divisions: 0.01 g

Shin Test Sides / Corners / Sections	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	X

Buildup Weight	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
	0.50 g	0.50 g	+0.00 g	+/- 0.01 g		ACCEPT
	1.00 g	1.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	2.00 g	2.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	5.00 g	5.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	100.00 g	100.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	200.00 g	200.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	500.00 g	500.00 g	+0.00 g	+/- 0.01 g		ACCEPT
	700.00 g	700.00 g	+0.00 g	+/- 0.02 g		ACCEPT

Test Procedure follows QSP009-001/002 NIST #: MO: 259883/253250 39598 OBS04-0268/03-0450
Rica Lake: 822/266928-02 822/272801-08 822/274081-06

Cal Date: 04/30/2008 Next Cal due: 04/30/2009

Calibration Dates: APR

Service Technician Registration #: 0524-M

Calibrated By Service Technician: Jim Koerkenmeier

Job Queue#: LT214946

Report ID: 68962679

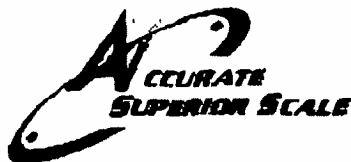
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Reviewed By _____

Date Reviewed _____

5404 Jedmed Ct. - St. Louis, MO 63129
Business: (314) 846-7778 - Fax: (314) 846-7779



Scale Inspection Report



Customer: ONYX ENVIRONMENTAL (86)
#7 MOBILE AVENUE
SAUGET, IL 62201

Location: N/A
MFG / Model: Mettler / PG 802

Scale Type: Balance
Capacity: 810 g

Description: Class I
Serial No: 11925184
Scale No: N/A
Divisions: 0.01 g

Shift Test Sides / Corners / Sections	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	X

Buildup Weight	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
	0.50 g	0.50 g	+0.00 g	+/- 0.01 g	0.50 g	ACCEPT
	1.00 g	1.00 g	+0.00 g	+/- 0.01 g	1.00 g	ACCEPT
	2.00 g	2.00 g	+0.00 g	+/- 0.01 g	2.00 g	ACCEPT
	5.00 g	5.00 g	+0.00 g	+/- 0.01 g	5.00 g	ACCEPT
	100.00 g	100.00 g	+0.00 g	+/- 0.01 g	100.00 g	ACCEPT
	200.00 g	200.92 g	+0.92 g	+/- 0.01 g	200.00 g	ACCEPT
	500.00 g	499.94 g	-0.06 g	+/- 0.01 g	500.00 g	ACCEPT
	700.00 g	699.92 g	-0.08 g	+/- 0.02 g	700.00 g	ACCEPT

Test Procedure follows QSP009-001/002 NIST #: MO: 259883/253250 39598 OBS04-0268/03-0450
Rice Lake: 822/268928-02 822/272801-06 822/274081-06

Cal Date: 04/30/2008 Next Cal due: 04/30/2009

Service Technician Registration #: 0524-M

Calibrated By Service Technician: Jim Koerkenmeyer

Calibration Dates: APR

Job Queue#: LT214946

Report ID: 68962680

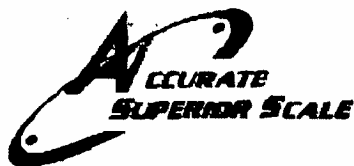
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Reviewed By _____

Date Reviewed _____

5404 Jedred Ct. - St. Louis, MO 63129
Business: (314) 645-7778 - Fax: (314) 645-7779



Scale Inspection Report



Customer: ONYX ENVIRONMENTAL (86)
#7 MOBILE AVENUE
SAUGET, IL 62201

Description: Class I
Serial No: 1125572864
Scale No: N/A
Divisions: .0001 g

Location: N/A
MFG / Model: Mettler / XS 204

Scale Type: Balance
Capacity: 220 g

Shift Test Sides / Corners / Sections	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	X

Buildup Weight	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
	0.1000 g	0.1000 g	+0.0000 g	+/- 0.0001 g		ACCEPT
	0.2000 g	0.2000 g	+0.0000 g	+/- 0.0001 g		ACCEPT
	0.5000 g	0.5000 g	+0.0000 g	+/- 0.0001 g		ACCEPT
	1.0000 g	1.0000 g	+0.0000 g	+/- 0.0001 g		ACCEPT
	10.0000 g	10.0000 g	+0.0000 g	+/- 0.0002 g		ACCEPT
	50.0000 g	50.0000 g	+0.0000 g	+/- 0.0003 g		ACCEPT
	100.0000 g	100.0001 g	+0.0001 g	+/- 0.0003 g		ACCEPT
	200.0000 g	200.0001 g	+0.0001 g	+/- 0.0003 g		ACCEPT

Test Procedure follows QSP009-001/002 NIST #: MO: 259883/253250 39598 OBS04-0268/03-0450
Rice Lake: 822/268A28-02 822/272B01-06 822/274081-06

Cal Date: 04/30/2008 Next Cal due: 04/30/2009
Service Technician Registration #: 0524-M
Calibrated By Service Technician: Jim Koerkenmeier

Calibration Dates: APR

Job Queue#: LT214946

Report ID: 68962682

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Reviewed By _____

Date Reviewed _____



5404 Jedmed Ct. - St. Louis, MO 63129
Business: (314) 845-7778 - Fax: (314) 845-7779

Scale Inspection Report



Customer: ONYX ENVIRONMENTAL (88)
#7 MOBILE AVENUE
SAUGET, IL 62201

Location: Plant
MFG / Model: 320 IS

Scale Type: Bench
Capacity: 200 lbs

Description: Class III
Serial No: 1386300044
Scale No: na
Divisions: .1lbs

Shift Test Sides / Corners / Sections	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
Corner 1	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
Corner 2	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
Corner 3	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
Corner 4	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
Buildup Weight	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
	50.0 lb	50.0 lb	+0.0 lb	+/- 0.1 lb		ACCEPT
	75.0 lb	75.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
	150.0 lb	150.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
	200.0 lb	200.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT

Test Procedure follows QSP009-001/002 NIST #: MO: 259883/253250 39598 OBS04-0268/03-0450
Rice Lake: 822/266926-02 822/272801-06 822/274081-06

Serial No: 259883/253250

Cal Date: 07/23/2008 Next Cal due: 10/31/2008
Service Technician Registration #: 01521L/226-M
Calibrated By Service Technician: Alan Primo

Calibration Dates: JAN APR JUL OCT

Job Queue#: LT215497

Report ID: 68964318

Environmental Conditions: Normal

Uncertainty of Measurement provided on request

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Reviewed By _____

Date Reviewed _____



5404 Jedmed Ct. - St. Louis, MO 63129
Business: (314) 845-7778 - Fax: (314) 845-7779

Scale Inspection Report



Customer: ONYX ENVIRONMENTAL (88)
#7 MOBILE AVENUE
SAUGET, IL 62201

Location: Plant
MFG / Model: 320 IS

Scale Type: Bench
Capacity: 200 lbs

Description: Class III
Serial No: 1386300045
Scale No: na
Divisions: .1lbs

Shift Test Sides / Corners / Sections	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
Corner 1	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
Corner 2	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
Corner 3	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
Corner 4	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
Buildup Weight	Weights Applied	Scale Reading	Error (+/-)	Tolerance Maintenance	Scale Reading After Adjustment	Accept / Reject
	50.0 lb	50.0 lb	+0.0 lb	+/- 0.1 lb		ACCEPT
	75.0 lb	75.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
	100.0 lb	100.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
	150.0 lb	150.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT
	200.0 lb	200.0 lb	+0.0 lb	+/- 0.2 lb		ACCEPT

Test Procedure follows QSP009-001/002 NIST #: MO: 259883/253250 39598 OBS04-0268/03-0450
Rice Lake: 822/266926-02 822/272801-06 822/274081-06

Cal Date: 07/23/2008

Next Cal due: 10/31/2008

Calibration Dates: JAN APR JUL OCT

Service Technician Registration #: 0152IL/226-M

Calibrated By Service Technician: Alan Primo

Job Queue#: LT215497

Report ID: 68964319

Environmental Conditions: Normal

Uncertainty of Measurement provided on request

FOR CUSTOMER USE ONLY

Reviewed By _____

Date Reviewed _____

This document shall not be reproduced, except in full, without the approval of Accurate Superior Scale Company.



5404 Jedmed Ct. - St. Louis, MO 63129
Business: (314) 845-7778 - Fax: (314) 845-7779

Scale Inspection Report



Customer: Veolia
#7 MOBILE AVENUE
SAUGET, IL 62201

Location: N/A
MFG / Model: Toledo / 8141

Scale Type: Floor
Capacity: 2,000 lb

Description: Class III
Serial No: 6074923-6ST
Scale No: N/A
Divisions: 0.1 lb

Shift Test Sides / Corners / Sections	Weights Applied	Scale Reading	Error (+/-)	Tolerance Accept	Scale Reading After Adjustment	Accept / Reject
Corner 1	200.0 lb	199.0 lb	-1.0 lb	+/- 0.1 lb	200.0 lb	ACCEPT
Corner 2	200.0 lb	199.0 lb	-1.0 lb	+/- 0.1 lb	200.0 lb	ACCEPT
Corner 3	200.0 lb	199.0 lb	-1.0 lb	+/- 0.1 lb	200.0 lb	ACCEPT
Corner 4	200.0 lb	199.0 lb	-1.0 lb	+/- 0.1 lb	200.0 lb	ACCEPT
Buildup Weight	Weights Applied	Scale Reading	Error (+/-)	Tolerance Accept	Scale Reading After Adjustment	Accept / Reject
	100.0 lb	99.0 lb	-1.0 lb	+/- 0.1 lb	100.0 lb	ACCEPT
	300.0 lb	299.0 lb	-1.0 lb	+/- 0.1 lb	300.0 lb	ACCEPT
	500.0 lb	498.0 lb	-2.0 lb	+/- 0.2 lb	500.0 lb	ACCEPT
	700.0 lb	698.0 lb	-2.0 lb	+/- 0.2 lb	700.0 lb	ACCEPT
	1000.0 lb	997.0 lb	-3.0 lb	+/- 0.2 lb	1000.0 lb	ACCEPT

Test Procedure follows QSP009-001/002 NIST #: MO: 259883/253250 39598 OBS04-0268/03-0450
Rice Lake: 822/266926-02 822/272801-06 822/274081-06

Cal Date: 07/08/2008 Next Cal due: 90 days
Service Technician Registration #: 0152IL/226-M
Calibrated By Service Technician: Alan Primo

Calibration Dates:

Job Queue#: LT215654

Report ID: 68965374

Comments: Recalibrated
Environmental Conditions: Normal

Uncertainty of Measurement provided on request

FOR CUSTOMER USE ONLY

Reviewed By _____

Date Reviewed _____

Attachment 5

Sample Container Certificate of Analysis



Scientific Products LLC

Where clean is critical

36 East B.J. Tunnell Blvd.
Miami OK 74354

QC-B-001
Rev. 4
9/23/05

Certificate of Analysis

BOTTLE TYPE GLASS QA LEVEL 1 LOT NO 027852

DESCRIPTION 131-08C; 250ml. Short Clear Wide Mouth Jar

EP Scientific Products Level 1 products have been tested and found to comply with or to be lower than the EPA detection limits as stated in OSWER Directive # 9248.0-05A, "Specifications And Guidance For Contaminant-Free Sample Containers 12/92". EP Scientific Products pass/fail criteria considers all significant non-target compounds.

Glass and HDPE Sample containers for use in the analysis of Metals			
Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)
Aluminum	<30	Cadmium	<100
Antimony	<5	Chromium	<10
Arsenic	<2	Cobalt	<10
Barium	<20	Copper	<10
Beryllium	<0.5	Iron	<50
Cadmium	<1	Lead	<2
Calcium	<500	Magnesium	<100
		Manganese	<10
		Mercury	<0.2
		Nickel	<20
		Potassium	<750
		Potassium (all HDPE)	<100
		Selenium	<2
		Silver	<5
		Sodium	<5000
		Sodium (all HDPE)	<100
		Thallium	<5
		Vanadium	<10
		Zinc	<10

In addition to the above analytes, NALGENE® containers are certified for these analytes:

Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)
Chloride	<100	Fluoride	<20
Cyanide	<10	Nitrate	<20
Diquat (amber only)	<1.0	Nitrite	<50
		Paraquat (amber only)	<0.4
		Sulfate	<100
		Sulfide	<30
		Sulfite	<1000

Glass Sample Containers for use in the analysis of Semivolatiles and Pesticides/PCBs

Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)
Acephenanthrene	<5	Acenaphthylene	<5	Acenaphthene	<5
Benzo(a)anthracene	<5	Benzo(a)pyrene	<5	Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5	Benzo(g,h,i)perylene	<5	Benzoic Acid	<20
Benzyl Alcohol	<5	4-Bromophenyl-phenylether	<5	Butylbenzylphthalate	<5
4-Chloroaniline	<5	4-Chloro-3-methylphenol	<5	bis-(2-chloroethoxy)methane	<5
bis-(2-Chloroethyl) ether	<5	bis-(2-Chloroisopropyl) ether	<5	2-Chloronaphthalene	<5
2-Chlorophenol	<5	4-Chlorophenyl-phenylether	<5	Chrysene	<5
Di-n-butylphthalate	<5	Di-n-octylphthalate	<5	Dibenz(a,h)anthracene	<5
Dibenzofuran	<5	1,2-Dichlorobenzene	<5	1,4-Dichlorobenzene	<5
1,3-Dichlorobenzene	<5	3,3'-Dichlorobenzidine	<5	2,4-Dichlorophenol	<5
Diethylphthalate	<5	Dimethylphthalate	<5	2,4-Dinitrobenzene	<5
4,6-Dinitro-2-methylphenol	<20	2,4-Dinitrophenol	<20	Fluoranthene	<5
2,6-Dinitrobenzene	<5	bis-(2-Ethylhexyl)phthalate	<5	Hexachlorobutadiene	<5
Fluorene	<5	Hexachlorobenzene	<5	Indeno(1,2,3-cd)pyrene	<5
Hexachlorocyclopentadiene	<5	Hexachloroethane	<5	2-Methylphenol	<5
Isophorone	<5	2-Methylnaphthalene	<5	3-Nitroaniline	<20
4-Methylphenol	<5	2-Nitroaniline	<20	N-Nitrosodimethylamine	<5
4-Nitroaniline	<20	N-Nitroso-di-n-propylamine	<5	Nitrobenzene	<5
N-Nitrosodiphenylamine	<5	Naphthalene	<5	Pentachlorophenol	<20
2-Nitrophenol	<5	4-Nitrophenol	<20	Pyrene	<5
Phenanthrene	<5	Phenol	<5	2,4,6-Trichlorophenol	<5
1,2,4-Trichlorobenzene	<5	2,4,5-Trichlorophenol	<20	Aldrin	<0.01
Asobenzene	<5	Carbazole	<5	Alpha-BHC	<0.01
4,4-DDD	<0.02	Endosulfen II	<0.02	Beta-BHC	<0.01
4,4-DDB	<0.02	Endosulfen Sulfate	<0.02	Delta-BHC	<0.01
4,4-DDT	<0.02	Endrin	<0.02	Gamma-BHC	<0.01
Dieldrin	<0.02	Endrin Aldehyde	<0.02	Heptachlor Epoxide	<0.01
Endosulfen I	<0.01	Heptachlor	<0.01	Alpha-Chlordane	<0.01
Methoxychlor	<0.10	Endrin Ketone	<0.02	Aroclor-1016	<0.20
Gamma-Chlordane	<0.01	Toxaphene	<0.30	Aroclor-1242	<0.20
Aroclor-1221	<0.20	Aroclor-1232	<0.20	Aroclor-1254	<0.20
Aroclor-1248	<0.20	Aroclor-1254	<0.20	Aroclor-1268	<0.20
Aroclor-1262	<0.20	Aroclor-1268	<0.20		

Glass Sample Containers for use in the analysis of Volatiles

Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)
Acetone	<5	1,3-Dichloropropane	<1	Benzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1	1,2-Dichloropropane	<1
Bromodichloromethane	<1	trans-1,3-Dichloropropane	<1	Bromoforn	<1
cis-1,3-Dichloropropane	<1	Bromomethane	<1	1,1-Dichloropropane	<1
2-Butanone	<5	Ethylbenzene	<1	tert-Butylbenzene	<1
Hexachlorobutadiene	<1	sec-Butylbenzene	<1	2-Hexanone	<5
n-Butylbenzene	<1	Isopropylbenzene	<1	Carbon Disulfide	<1
p-Isopropyltoluene	<1	Carbon Tetrachloride	<1	4-Methyl-2-pentanone	<5
Chloromethane	<1	Methylene Chloride	<1	Chloroethane	<1
1,1,2,2-Tetrachloroethane	<1	Chloroform	<1	n-Propylbenzene	<1
Dibromochloromethane	<1	Styrene	<1	2 & 4 Chlorotoluene	<1
1,2,3-Trichloropropane	<1	1,2-Dibromo-3-chloropropane	<1	Trichloroethane	<1
1,4-Dichlorobenzene	<1	Toluene	<1	1,2-Dibromomethane (EDB)	<1
1,1,1-Trichloroethane	<1	Dibromomethane	<1	1,2,4-Trichlorobenzene	<1
Dichlorodifluoromethane	<1	1,1,2-Trichloroethane	<1	1,3-Dichlorobenzene	<1
1,2,3-Trichloropropane	<1	1,2-Dichlorobenzene	<1	Trichloroethane	<1
trans-1,2-Dichloroethane	<1	Trichlorofluoromethane	<1	1,2-Dichloroethane	<1
Vinyl Acetate	<5	1,1-Dichloroethane	<1	Bromochloromethane	<1
Xylenes (total)	<1	1,3,5-Trimethylbenzene	<1		
Vinyl Chloride	<1	1,1-Dichloroethane	<1		
		1,2,4-Trimethylbenzene	<1		
		cis-1,2-Dichloroethane	<1		

In addition to the above analytes, 40 mL and 68 mL vials are certified for:

Compound	Quantitation Limit (µg/L)
Total Organic Carbon	<500

If EP Scientific Products can be of any further assistance, please call 800-331-7425 and ask for our Technical Service Department.
Approved By: James L. Riner - Quality Assurance

James L. Riner



Scientific Products LLC

Where clean is critical

36 East B.J. Tunnell Blvd.
Miami OK. 74354

QC-B-001

Rev. 4

9/23/05

Certificate of Analysis

BOTTLE TYPE GLASS QA LEVEL 1 LOT NO 027852

DESCRIPTION 131-08C; 250ml. Short Clear Wide Mouth Jar

EP Scientific Products Level 1 products have been tested and found to comply with or to be lower than the EPA detection limits as stated in OSWER Directive # 9248.0-05A, "Specifications And Guidance For Contaminant-Free Sample Containers 12/92". EP Scientific Products pass/fail criteria considers all significant non-target compounds.

Glass and HDPE Sample containers for use in the analysis of Metals							
Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg /L)
Aluminum	<80	Calcium (all HDPE)	<100	Magnesium	<100	Selenium	<2
Antimony	<5	Chromium	<10	Manganese	<10	Silver	<5
Arsenic	<2	Cobalt	<10	Mercury	<0.2	Sodium	<5000
Barium	<20	Copper	<10	Nickel	<20	Sodium (all HDPE)	<100
Beryllium	<0.5	Iron	<50	Potassium	<750	Thallium	<5
Cadmium	<1	Lead	<2	Potassium (all HDPE)	<100	Vanadium	<10
Calcium	<500					Zinc	<10

In addition to the above analytes, NALGENE® containers are certified for these analytes:

Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)	Analyte	Detection Limit (µg/L)
Chloride	<100	Fluoride	<20	Nitrite	<50	Sulfate	<100
Cyanide	<10	Nitrate	<20	Paraquat (number only)	<0.4	Sulfide	<30
Diquat (number only)	<1.0					Sulfite	<1000

Glass Sample Containers for use in the analysis of Semivolatiles and Pesticides/PCBs

Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)
Acephenanthrene	<5	Acephenanthrene	<5	Anthracene	<5
Benzo(a)anthracene	<5	Benzo(a)pyrene	<5	Benzo(b)fluoranthene	<5
Benzo(k)fluoranthene	<5	Benzo(g,h,i)perylene	<5	Benzoic Acid	<20
Benzyl Alcohol	<5	4-Bromophenyl-phenylether	<5	Butylphenylphthalate	<5
4-Chloroaniline	<5	4-Chloro-3-methylphenol	<5	bis-(2-	<5
bis-(2-Chloroethoxy)ether	<5	bis-(2-Chloroisopropyl)ether	<5	Chloroethoxy)methane	<5
2-Chlorophenol	<5	4-Chlorophenyl-phenylether	<5	2-Chlorophenylphthalate	<5
Di-n-butylphthalate	<5	Di-n-octylphthalate	<5	Chrysene	<5
Dibenzofuran	<5	1,2-Dichlorobenzene	<5	Dibenz(a,h)anthracene	<5
1,3-Dichlorobenzene	<5	3,3'-Dichlorobenzidine	<5	1,4-Dichlorobenzene	<5
Diethylphthalate	<5	Dimethylphthalate	<5	2,4-Dichlorophenol	<5
4,6-Dinitro-2-methylphenol	<20	2,4-Dinitrophenol	<20	2,4-Dinitrotoluene	<5
2,6-Dinitrotoluene	<5	bis-(2-Ethylhexyl)phthalate	<5	Fluoranthene	<5
Fluorene	<5	Hexachlorobenzene	<5	Hexachlorobutadiene	<5
Hexachlorocyclopentadiene	<5	Hexachloroethane	<5	Indeno(1,2,3-cd)pyrene	<5
Isophorone	<5	2-Methylanthracene	<5	2-Methylphenol	<5
4-Methylphenol	<5	2-Nitroaniline	<20	3-Nitroaniline	<20
4-Nitroaniline	<20	N-Nitroso-di-n-propylamine	<5	N-Nitrosodimethylamine	<5
N-Nitrosodiphenylamine	<5	Naphthalene	<5	Nitrobenzene	<5
2-Nitrophenol	<5	4-Nitrophenol	<20	Pentachlorophenol	<20
Phenanthrene	<5	Phenol	<5	Pyrene	<5
1,2,4-Trichlorobenzene	<5	2,4,5-Trichlorophenol	<20	2,4,6-Trichlorophenol	<5
Acrobenzene	<5	Carbazole	<5	Aldrin	<0.01
4,4-DDD	<0.02	Endosulfan II	<0.02	Alpha-BHC	<0.01
4,4-DDD	<0.02	Endosulfan Sulfate	<0.02	Beta-BHC	<0.01
4,4-DDT	<0.02	Endrin	<0.02	Delta-BHC	<0.01
Dieldrin	<0.02	Endrin Aldehyde	<0.02	Gamma-BHC	<0.01
Endosulfan I	<0.01	Heptachlor	<0.01	Heptachlor Epoxide	<0.01
Methoxychlor	<0.10	Endrin Ketone	<0.02	Alpha-Chlordane	<0.01
Gamma-Chlordane	<0.01	Toxaphene	<0.30	Aroclor-1016	<0.20
Aroclor-1221	<0.20	Aroclor-1232	<0.20	Aroclor-1242	<0.20
Aroclor-1248	<0.20	Aroclor-1254	<0.20	Aroclor-1260	<0.20
Aroclor-1262	<0.20	Aroclor-1268	<0.20		

Glass Sample Containers for use in the analysis of Volatiles

Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)	Compound	Quantitation Limit (µg/L)
Acetone	<5	1,3-Dichloropropene	<1	Benzene	<1
2,2-Dichloropropene	<1	Bromobenzene	<1	1,2-Dichloropropene	<1
Bromodichloromethane	<1	trans-1,3-Dichloropropene	<1	Bromoforn	<1
cis-1,3-Dichloropropene	<1	Bromomethane	<1	1,1-Dichloropropene	<1
2-Butanone	<5	Ethylbenzene	<1	tert-Butylbenzene	<1
Hexachlorobutadiene	<1	sec-Butylbenzene	<1	2-Hexanone	<5
n-Butylbenzene	<1	Isopropylbenzene	<1	Carbon Disulfide	<1
p-Isopropyltoluene	<1	Carbon Tetrachloride	<1	4-Methyl-2-pentanone	<5
Chloromethane	<1	Methylene Chloride	<2	Chloroethane	<1
1,1,2,2-Tetrachloroethane	<1	Chloroform	<1	n-Propylbenzene	<1
Dibromochloromethane	<1	Styrene	<1	2 & 4 Chlorotoluene	<1
1,2,3-Trichloropropene	<1	1,2-Dibromo-3-chloropropene	<1	Tetrachloroethane	<1
1,4-Dichlorobenzene	<1	Toluene	<1	1,2-Dibromochloroethane (EDB)	<1
1,1,1-Trichloroethane	<1	Dibromomethane	<1	1,2,4-Trichlorobenzene	<1
Dichlorodifluoromethane	<1	1,1,2-Trichloroethane	<1	1,3-Dichlorobenzene	<1
1,2,3-Trichloropropene	<1	1,2-Dichlorobenzene	<1	Trichloroethane	<1
trans-1,2-Dichloroethane	<1	Trichlorofluoromethane	<1	1,2-Dichloroethane	<1
Vinyl Acetate	<5	1,1-Dichloroethane	<1	Bromochloromethane	<1
Xylenes (total)	<1	1,3,5-Trimethylbenzene	<1		
Vinyl Chloride	<1	1,1-Dichloroethane	<1		
		1,2,4-Trimethylbenzene	<1		
		cis-1,2-Dichloroethane	<1		

In addition to the above analytes, 40 mL and 60 mL vials are certified for:

Compound	Quantitation Limit (µg/L)
Total Organic Carbon	<500

If EP Scientific Products can be of any further assistance, please call 800-331-7425 and ask for our Technical Service Department.
Approved By: James L. Riner - Quality Assurance

James L. Riner

Attachment 6

Chain-of-Custody Record

Attachment 7

Historical Metals Feed Rates

[illegible]

Attachment 8

Electronic Message with Waste Analytical Corrections



Dennis.Warchol@veoliaes.com

08/15/2008 01:44 PM

To: Todd Ramaly/R5/USEPA/US@EPA

cc

bcc

Subject: Re: Waste Stream Information

Todd,

We have talked to US Army and they are sending over the analysis results for that load that we fed during the testing on Units 2 and 3. I will fax over as soon as I receive.

The tank 2 laboratory analysis sheet that we gave you had the same formatting error that the Zexel did. The actual laboratory results are correct but when we electronically transferred to the analysis report sheet the Hg and Pb values were inserted in the wrong column. The Hg concentration for Tank 2 was 0.02 ppm and the Pb concentration is 65 ppm.

Please call if you have any additional questions.

Dennis J. Warchol
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